

REMARKS

An excess claim fee payment letter is submitted herewith for six (6) additional total claims and one (1) additional independent claim.

Claims 1-26 are all the claims presently pending in the application. Claims 1-2 and 9 are amended to more clearly define the invention and claims 21-26 are added. Claims 1-2, 5-6, 9-13, and 21 are independent.

These amendments are made only to more particularly point out the invention for the Examiner and not for narrowing the scope of the claims or for any reason related to a statutory requirement for patentability.

Applicant also notes that, notwithstanding any claim amendments herein or later during prosecution, Applicant's intent is to encompass equivalents of all claim elements.

Claims 1-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kleijne et al. reference.

This rejection is respectfully traversed in the following discussion.

I. THE CLAIMED INVENTION

An exemplary embodiment of the claimed invention, as defined, for example, by independent claim 13, is directed to a data storage device that includes a data storage in a housing, a plurality of electrodes disposed on the housing, and a processor that determines a deflection of the housing based upon a capacitance between the plurality of electrodes.

Conventional secure data storage devices have relied upon a key cryptography system for

encoding confidential data. These devices have stored the keys within a storage that includes micro-switches within its housing. However, these micro-switches are not capable of reliably detecting a dismantling of the housing if the micro-switches are avoided.

In stark contrast, the present invention (e.g., see claim 1) provides a data storage device that detects a deflection of the housing by detecting the capacitance between two electrodes that are disposed on the housing. For example, one exemplary embodiment of the present invention detects the capacitance between a plurality of electrodes disposed on the housing of the data storage device and determines whether the housing is deflected based upon a change of capacitance between the plurality of electrodes. In this manner, the present invention is capable of reliably detecting any deflection of the housing as might occur when one attempts to dismantle or otherwise gain access to the inside of the housing (page 10, line 15 - page 11, line 7).

II. THE PRIOR ART REJECTION

The Examiner alleges that the Kleijne et al. reference would have been modified to form the claimed invention. Applicant submits, however, that the Kleijne et al. reference would not have been modified as alleged by the Examiner, and even if modified, the modification would not teach or suggest each and every element of the claimed invention.

The Examiner repeatedly admits (at least ten times) that the Kleijne et al. reference “fails to explicitly discuss having two electrodes disposed on said housing.” In other words, the Examiner admits that the Kleijne et al. reference does not teach or suggest the feature of the two electrodes disposed on the housing as recited by the claims of the present application.

However, the Examiner then repeatedly alleges (at least ten times) that “it is obvious to include two if not more electrodes on the housing such that the electrode is on each side of the housing can (sic) sense when there is an intrusion or deflection of the housing. It is also obvious the (sic) housing or the encasing alone is not able to detect or sense any intrusion so it is necessary to have a sensing or electrode conducting material superimposed onto the encasing to form the ‘house.’ It would have been obvious of (sic) ordinary skill in the art for Kleijne to have (two or more) electrodes disposed on the housing in order to sense or detect when there is an intrusion or some sort of deflection involving the encasing (sides) of the housing (col.6, line 67 - col.7, line 4).”

The Examiner’s allegation of obviousness fails to present a prima facie case of obviousness on at least two counts. The Examiner’s allegations 1) fail to provide a motivation in the art to make the alleged modification; and 2) fail to provide a teaching or suggestion of such a modification.

Sections 2142 and 2143 of the MPEP both state:

“To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. . . . Finally, the prior art reference (or references when combined) must teach or suggest all of the claimed limitations.” (Emphasis added).

“The teaching or suggestion to make the claimed combination and the

reasonable expectation of success must both be found in the prior art, not in applicant's disclosure." (Emphasis added, M.P.E.P. § 2143.01).

"There are three possible sources for a motivation to combine references; the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art.." (Emphasis added, Id.).

Clearly, the Examiner has failed to provide a prima face case of obviousness because the Examiner has failed to provide any prior art reference which discloses two electrodes that are disposed on the housing.

Indeed, the Examiner admits that the Kleijne et al. reference does not teach or suggest the features of the present invention including two electrodes that are disposed on the housing.

Indeed, the Examiner does not allege that there is a teaching of this feature in any prior art reference at all. Clearly, these allegations do not rise to the level sufficient to establish a prima facie case of obviousness.

The Examiner cites col. 6, line 67 - col. 7, line 4 in what appears to be an attempt to support the Examiner's allegation of obviousness. However, the Examiner does not allege that this portion of the Kleijne et al. reference teaches or suggests the features which the Examiner admits is missing from the disclosure of the Kleijne et al. reference.

Col. 6, line 67 - col. 7, line 4 of the Kleijne et al. reference in its entirety states:

"rangement, if an attempt is made to penetrate the housing 11, by forming a small hole through one of the plates P1-P6, such hole will penetrate at least one of the conductive path segments on the plate and will penetrate the conductive sheet on

the plate. This provides a very high degree of security for the sensitive data stored in.”

This portion of the Kleijne et al. reference clearly does not teach or suggest the feature of two electrodes that are disposed on the housing. Again, the Examiner admitted at least ten times in the Office Action that the Kleijne et al. reference does not teach or suggest this feature.

Further, the Examiner has also failed to support a prima facie case for obviousness by failing to provide a suggestion or motivation that is “found in the prior art, not in applicant’s disclosure” (Emphasis added, M.P.E.P. § 2143.01) to make the Examiner’s alleged modification.

The Examiner appears to allege (thirty times over) that one of ordinary skill in the art would have been motivated to modify the disclosure of the Kleijne et al. reference so that “the electrode . . . can sense when there is an intrusion or deflection of the housing .”

However, the Examiner clearly does not provide any citation at all as to where such a motivation may be found in the applied reference.

The Examiner only cites column 6, line 67 through col. 7, through line 4. However, that citation does not support the Examiner’s allegation that one of ordinary skill in the art would have been motivated to modify the teachings of the Kleijne et al. reference so that the device “can sense when there is an intrusion or deflection of the housing” because the very same citation that the Examiner provides explains that the disclosure of the Kleijne et al. reference does not need to be modified to provide this ability to sense when there is an intrusion of the housing.

The Kleijne et al. reference makes it very clear that the “six ceramic plates each having thereon a pair of serially connected conductive path segments formed in separate, superposed

layers and arranged in complementary winding configurations.” (Abstract) provide the ability to detect penetration (intrusion). “If an attempt to penetrate the housing results in either of the conductive path segments being interrupted or shorted to the conductive sheet, a reset signal is generated” (Id.).

Indeed, the Examiner’s own citation of column 6, line 67 through col. 7, through line 4 explains that “if an attempt is made to penetrate the housing 11, by forming a small hole through one of the plates P1-P6, such hole will penetrate at least one of the conductive path segments” thereby either interrupting or shorting the path segment and sensing the intrusion.

Therefore, the Examiner has clearly failed to provide a prima facie case for obviousness by failing to provide a suggestion or motivation that is “found in the prior art, not in applicant’s disclosure” (Emphasis added, M.P.E.P. § 2143.01) to make the Examiner’s alleged modification.

Even assuming arguendo that one of ordinary skill in the art would have been motivated to modify the Kleijne et al. reference, as explained previously, the modification would not teach or suggest each and every element of the claimed invention.

The Kleijne et al. reference does not teach or suggest the features of the claimed invention including: 1) detecting a change in capacitance between electrodes 2) that are disposed on the housing.

The Kleijne et al. reference discloses a tamper detection circuit 102 that includes two sense circuits 124 and 126. The first sense circuit 124 senses when the voltage plane VP is shorted to ground. (Col. 12, lines 30-43). In other words, the first sense circuit 124 detects the presence of zero resistance through the voltage plane VP. The second sense circuit 126 senses

when the wire mesh WM is broken or shorted either to Vc or VP. (Col. 12, lines 44-53). In other words, the second sense circuit 126 senses when the wire mesh experiences infinite resistance (i.e., is open).

Therefore, the Kleijne et al. reference clearly does not teach or suggest the feature of detecting a change in capacitance between the electrodes. Rather, the Kleijne et al. reference merely discloses detecting a change in resistance.

Further, as admitted by the Examiner, the Kleijne et al. reference does not teach or suggest the features of the present invention including a data storage device that detects a deflection of the housing by detecting the capacitance between two electrodes that are disposed on the housing.

Indeed, the Kleijne et al. reference does not teach or suggest electrodes that are disposed on the housing, let alone a data storage device that detects a deflection of the housing by detecting the capacitance between two electrodes that are disposed on the housing

The Kleijne et al. reference discloses a data storage device that incorporates ceramic plates that each have a pair of serially connective conductive path segments that are provided on separate, superimposed layers (Abstract; and col. 2, lines 12-34). The Kleijne et al. reference further includes an electronic circuit 84 (Fig. 14) that includes tamper detection circuitry 102 (Fig. 15). The tamper detection circuitry 102 includes sense circuits 124 and 126. The sense circuit 124 determines whether the voltage plane has shorted to the wire mesh (col. 11, lines 22-25). Similarly, the sense circuit 126 determines whether the wire mesh has been broken or shorted (col. 11, lines 41-44).

The Examiner cites columns 11 and 12 in an attempt to support the Examiner's allegation that the Kleijne et al. reference discloses measuring a capacitance across electrodes. While the Kleijne et al. reference discloses a capacitor 170 in the sense circuit 126 as illustrated in Figure 15 and discussed at column 12, lines 4-17 and lines 54 - 57, the electrodes that connect to the capacitor 170 are not disposed upon the housing. Rather, these electrodes are disposed on the electronic circuitry 84 (See Figs. 3 and 14) which are encased within the housing.

In stark contrast, as is illustrated for example by Figure 2 of the present specification, the electrodes 6a - 7c are disposed on the housing. The capacitance between these electrodes is monitored to determine whether the housing is deflected such that the relative positions between the electrodes changes which will cause a change in the capacitance between the electrodes. In this manner, the present invention is capable of reliably detecting any deflection of the housing as might occur when one attempts to dismantle or otherwise gain access to the inside of the housing (page 10, line 15 - page 11, line 7).

Clearly, the Kleijne et al. reference does not teach or suggest the features of the present invention including a data storage device that detects a deflection of the housing by detecting the capacitance between two electrodes that are disposed on the housing.

Lastly, regarding the means plus function recitations, the Examiner has failed to interpret the claims to read only on the structures or materials disclosed in the specification and "equivalents thereof." The Federal Circuit has made it clear that the Office is required to interpret means plus function language in accordance with 35 U.S.C. § 112, sixth paragraph (see M.P.E.P. §2106; *In re Donaldson*, 16 F.3d 1189, 1193 (Fed. Cir. 1994) and *In re Alappat*, 33

F.3d 1526, 1540 (Fed. Cir. 1994)). Clearly, the Examiner has failed to interpret the claims to read only on the structures or materials disclosed by the present specification and “equivalents thereof.”

Therefore, the Examiner is respectfully requested to withdraw the rejection of claims 1-20.

III. FORMAL MATTERS AND CONCLUSION

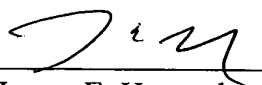
In view of the foregoing amendments and remarks, Applicant respectfully submits that claims 1-26, all the claims presently pending in the Application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the Application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

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